YOU ARE INVITED!
A*STAR IME presents

Industry Forum
Advanced Packaging Technologies for Automotive Electronics
and Artificial Intelligence Applications
5 September 2018 (Wednesday) • 9:00 am to 1:00 pm
Institute of Microelectronics, Auditorium
11 Science Park Road, Singapore Science Park 2, Singapore 117685

Over the past decade, advanced packaging has emerged as a key manufacturing platform to realize complex systems such as smart phones and data centers. Today, advanced packaging is a critical More-than-Moore technology for the semiconductor industry.

Recently, Automotive Electronics and Artificial Intelligence (AI) have emerged as market drivers of advanced packaging. The focus of this industry forum is the development and demonstration of innovations in advanced packaging to meet the demanding requirements of automotive and AI systems.

- Advanced packaging for automotive power modules and radar systems has to meet reliability, thermal tolerance, safety-requirements, and miniaturization needs of next generation vehicles including self-driving/driverless cars.
- For AI systems (applicable to deep learning and machine learning), advanced wafer-level packaging needs to support massive compute power for real-time applications which drives need for high density 3D interconnections that can be adequately met by wafer-to-wafer hybrid bonding.

IME is hosting the industry forum to establish a collaborative platform to address the above packaging challenges. The forum will feature industry keynotes that highlight the market requirements from automotive and AI applications. IME will present consortium project proposals that address the specific challenges posed by such requirements. The proposals will outline packaging solutions which will be achieved through design, modeling, materials selection, fabrication, assembly, packaging, testing and reliability of customized test vehicles for above applications. Through these projects, IME will be working closely with the industry supply chain including fabless, IDM, foundry, OSAT, equipment, materials and EDA providers to achieve timely solutions that meet market needs.

Program Details

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>9:00 am</td>
<td>Arrival of Guests / Registration (refreshments included)</td>
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<tr>
<td>9:30 am</td>
<td>Welcome Address by IME</td>
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<tr>
<td>9:45 am</td>
<td>Trends in Power Electronics for Automotive</td>
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<tr>
<td></td>
<td>by Dr. Gourab Majumdar, Executive Fellow, Mitsubishi Electric Corporation</td>
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<tr>
<td>10:15 am</td>
<td>Advanced Packaging Materials</td>
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<tr>
<td></td>
<td>by Mr. Kazuki Goto, General Manager of Electronic &amp; Imaging Materials Res. Lab. Toray Industries</td>
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<tr>
<td>10:45 am</td>
<td>IME Project Presentation Topics:</td>
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<tr>
<td></td>
<td>• Advanced Intelligent Power Module</td>
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<td></td>
<td>• Antenna-in-Package for mm-Wave Automotive Radar</td>
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<td></td>
<td>• Wafer-to-Wafer Hybrid Bonding for High Density 3D Interconnects for AI Applications</td>
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<tr>
<td>11:45 am</td>
<td>Q&amp;A, Project Participation and Follow Up</td>
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<tr>
<td>12:00 pm</td>
<td>Lunch Reception, Poster Session and Networking</td>
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<tr>
<td>1:00 pm</td>
<td>End of Forum</td>
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For enquiries, please contact:

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Location and Directions

By MRT
Nearest station: CC25 Haw Par Villa Station
- Exit Station. Transfer to bus service listed below across the road.
- Alight at the second bus stop (Bus Stop Number 16031 - Opp Science Park II) just before the T-junction leading into Science Park II.
- The Science Park II is located on the right, facing the bus stop.

By Taxi / Drop off / Pick up
IME's driveway.

By Bus
Service number 10, 30, 51, 143, 183, 188, 200
Coming from direction of Pasir Panjang Road,
Alight at Bus Stop Number 16031 (opp Science Park II).

Coming from direction of Clementi Road,
Alight at Bus Stop Number 16049 (Westvale).

Driving and Carpark

Coming from Pasir Panjang Road,
- Head northwest on Pasir Panjang Rd toward Balmeg Hill.
- Turn right onto Science Park Road after CC25 Haw Par Villa Station.
- Turn left after passing The Capricorn located on the left of the road.
- Turn right into the driveway of IME, located on the right (across from The Capricorn).

Coming from Clementi Road,
- Head south from on Clementi Road toward Commonwealth Avenue West.
- Turn left onto Pasir Panjang Road.
- Turn left onto Science Park Road.
- Turn left after passing The Capricorn located on the left of the road.
- Turn right into the driveway of IME, located on the right (across from The Capricorn).

Parking is available at IME. Parking fees apply.

Alternate Carparks
The Capricorn
The Alpha
Parking fees apply.